Section 4
Commercial Component

4.0 Overview

The City of Carlsbad currently has over 500 high priority commercial facilities operating within its jurisdiction. Commercial facilities can generate a variety of pollutants depending on the activities performed. Automobile maintenance, carpet cleaning, and landscaping activities have the potential to generate significant amounts of pollutants, if performed with disregard to the environment. Even in small quantities, these pollutants can combine in the storm water conveyance system and cause significant degradation to receiving waters. In order to determine specific potential sources, a comprehensive database of commercial facilities within the City has been compiled and high priority facilities have been selected based on threat to water quality. This prioritization process will determine the appropriate minimum BMPs for the commercial sites and sources.

This section discusses Permit requirements that apply to the Commercial Component of the Jurisdictional Urban Runoff Management Plan (JURMP) and actions proposed by the City of Carlsbad to minimize polluted runoff. This section meets or exceeds minimum requirements as specified in Section H of the Permit. The following subsections address storm water runoff issues from commercial sites and sources and how the City of Carlsbad will minimize those impacts on receiving water quality:

- Pollution Prevention (Section 4.1)
- Source Identification (Section 4.2)
- Best Management Practices Implementation (Section 4.3)
- Inspections of Commercial Sites and Sources (Section 4.4)
- Enforcement of Commercial Sites and Sources (Section 4.5)

Subsections 4.1 through 4.5 use a table format to briefly summarize the purpose of the subsection, quote the applicable regulatory requirements from Sections F and H of the Permit (*italicized*), and list the City's action plans. The rest of the subsection describes the specific actions that have been completed, are in progress, or are planned for future implementation.

The types of information that should be collected for use in preparing the Annual Report and Assessment/Evaluation of the JURMP is outlined in Section 11 of this JURMP, Assessment of Jurisdictional URMP Effectiveness Component.

4.1 Pollution Prevention

4.1.1 Purpose and Permit Requirements

Purpose

The purpose of this Permit requirement is to evaluate the pollution prevention opportunities applicable to commercial sites and sources for preventing or reducing pollutants from entering the storm drain system.

NPDES Permit Order No. 2001- 01 Requirement(s)

The Permit requirement under the Commercial Component for Pollution Prevention is as follows:

Section F.3.c.(1)
Each Copermittee shall implement pollution prevention methods in its Commercial (Existing Development) Component and shall require its use by commerce, where appropriate.

Jurisdictional URMP Requirements

The Permit requirement under the Commercial Component for Pollution Prevention is as follows:

Section H.1.a.(4)(a)
Which pollution prevention methods will be required for implementation, and how and where they will be required.

City Action Plan

1) Develop a list of pollution prevention opportunities for commercial facilities.
2) Encourage commercial facilities to develop and implement Storm Water Pollution Prevention Plans.

4.1.2 Pollution Prevention Action Plan

<u>Action #1</u> - Develop a list of pollution prevention opportunities for commercial sites and sources.

Pollution prevention is defined as practices and processes that reduce or eliminate the generation of pollutants. There are four key components to a pollution prevention program and a fifth component added for storm water. Reviewing the following five "Rs" will assist in identifying the pollution prevention opportunities available for commercial sites. The definitions of these terms are as follows:

- Reduce – BEFORE generating a waste stream, minimize the quantity or toxicity of the waste by substituting nontoxic chemicals.
- Reuse – Material, unwanted in one area, may be used for its intended purpose in another area.
- Recycle – Take used materials, reprocess, and produce a useful product in the same or other form.
- Rebuy – Purchase a product that contains recycled-content materials.
- Redirect – Divert the flow of storm water to reduce or eliminate contact with potential pollution. Direct storm water away from contact with known pollutants.

Pollution prevention eliminates or reduces the management of polluted storm water runoff. Commercial facilities often handle a variety of pollutants, both indoors and outdoors, that pose potential environmental threats if transported by way of urban runoff. In commercial operations, pollution prevention strategies enable the operator to reduce the volume of solid, liquid and hazardous wastes, as well as the accompanying costs of storage, disposal or treatment. The City will recommend the incorporation of such strategies into the standard operating procedures of all commercial facilities, whether a corporate chain store, a franchise, an independent shop or a "mom 'n' pop" operation. The City of Carlsbad will encourage or require the following pollution prevention methods, when appropriate:

- Use smaller quantities of toxic materials or substitute less-toxic materials.
- Minimize the volume of cleaning water to decrease wastewater or use dry methods.
- Provide signage to remind or instruct employees and customers.
- Implement a spill response plan.
- Segregate and recycle wastes.
- Provide a schedule of preventive maintenance.
- Provide on-going training of employees in pollution prevention methods.

The City of Carlsbad is implementing a comprehensive Outreach and Education program, and commercial owners and operators are one of the target audiences. The ultimate goal of the City's storm water program is to improve water quality and minimize polluted storm water runoff by preventing it at the "source". With effective pollution prevention measures in place, treatment or other structural controls may be unnecessary or minimized. The City will work to achieve this outreach and education goal by implementing a systematic approach that increases knowledge and awareness of pollution prevention measures. Commercial owners and operators will be educated using a variety of outreach methods to progressively achieve the key stages of awareness and ownership of storm water runoff pollution and prevention practices by using "Best Management Practices". The City's Outreach and Education program is described in section 9 of this JURMP. BMPs for commercial sites and sources are further described in section 4.3 of this component.

<u>Action #2</u> – Encourage commercial facilities to develop and implement Storm Water Pollution Prevention Plans (SWPPPs)

Pollution prevention eliminates or reduces the management of polluted storm water runoff. Commercial sites/sources are not explicitly required to implement SWPPPs. However, the City of Carlsbad will be conducting inspections of high priority commercial facilities, as outlined in section 4.4 of this component. The City will encourage all commercial facilities to develop and implement SWPPPs appropriate for their operation, and will retain authority within the ordinance to require SWPPPs when the inspector believes it is necessary to protect water quality. Guidelines for developing a SWPPP are described in Section A of Water Quality Order No. 97-03-DWQ, *Water Discharge Requirements for Discharges of Storm Water Associated with Industrial Activities Excluding Construction Activities*, issued by SWRCB.

4.2 Source Identification

4.2.1 Purpose and Permit Requirements

Purpose

The purpose of this Permit requirement is to generate an inventory of Commercial Sites/Sources to focus storm water quality efforts.

NPDES Permit Order No. 2001- 01 Requirement(s)

The Permit requirement under the Commercial Component for Source Identification is as follows:

Section F.3.c.(2)
Each Copermittee shall develop and update annually an inventory of the following high priority threat to water quality commercial sites/sources listed below. (If any commercial site/source listed below is inventoried as an industrial site, as required under section F.3.b.(2) of this Order, it is not necessary to also inventory it as a commercial site/source).

(a) Automobile mechanical repair, maintenance, fueling, or cleaning;
(b) Airplane mechanical repair, maintenance, fueling, or cleaning;
(c) Boat mechanical repair, maintenance, fueling, or cleaning;
(d) Equipment repair, maintenance, fueling, or cleaning;
(e) Automobile and other vehicle body repair or painting;
(f) Mobile automobile or other vehicle washing;
(g) Automobile (or other vehicle) parking lots and storage facilities;
(h) Retail or wholesale fueling;
(i) Pest control services;
(j) Eating or drinking establishments;
(k) Mobile carpet, drape or furniture cleaning;
(l) Cement mixing or cutting;
(m) Masonry;
(n) Painting and coating;
(o) Botanical or zoological gardens and exhibits;
(p) Landscaping;
(q) Nurseries and greenhouses;
(r) Golf courses, parks and other recreational areas/facilities;
(s) Cemeteries;
(t) Pool and fountain cleaning;
(u) Marinas;
(v) Port-a-Potty servicing;
(w) Other commercial sites/sources that the Copermittee determines may contribute a significant pollutant load to the MS4;
(x) Any commercial site or source tributary to a Clean Water Act section 303(d) impaired water body, where the site or source generates pollutants for which the water body is impaired; and
(y) Any commercial site or source within or directly adjacent to or discharging directly to a coastal lagoon or other receiving water within an environmentally sensitive area (as defined in F.1.b(2)(a)vii of this Order).

The use of an automated database system, such as Geographical Information

System (GIS) is highly recommended, but not required.

Jurisdictional URMP Requirements

The Permit requirement under the Commercial Component for Source Identification is as follows:

Section H.1.a.(4)(b)
A completed watershed-based inventory of high priority commercial sites.

City Action Plan

1) Generate an electronic list using spreadsheet software and GIS map of commercial facilities by watershed.
2) Annually update list and map of commercial areas.

4.2.2 Source Identification Action Plan

<u>Action #1</u> - Generate a list and GIS map of commercial areas by watershed.

D-Max Engineering, Inc. (D-Max) was contracted to identify commercial facilities within the City of Carlsbad. To accomplish this, D-Max reviewed the following databases and listings:

1. City of Carlsbad business license listing;
2. County of San Diego hazardous materials and waste listings; and,
3. Encina Wastewater Authority list of facilities with wastewater discharge permits.

Using this information, commercial sites/sources were analyzed using the criteria described below. Currently, 525 high priority commercial facilities have been identified within the City of Carlsbad and are presented in Appendix C, Table 4-1. An additional 65 facilities were found in the County of San Diego listing that did not have similar records with the City of Carlsbad. These facilities require further review and have been listed separately in Appendix C, Table 4-2. Fourteen industrial and commercial facilities were found in the Encina Wastewater Authority records that did not have similar records with the City or County. These facilities are presented in Appendix C, Table 3-9 with the Industrial inventory component and require further review by the City. The inventory will be updated and revised annually.

High Priority Criteria

The permit defines the following twenty-two (22) types of commercial sites/sources that must be considered a high priority threat to water quality:

1. Automobile mechanical repair, maintenance, fueling or cleaning;
2. Airplane mechanical repair, maintenance, fueling, or cleaning;
3. Boat mechanical repair, maintenance, fueling, or cleaning;
4. Equipment repair, maintenance, fueling, or cleaning;
5. Automobile and other vehicle body repair or painting;
6. Mobile automobile or other vehicle washing;
7. Automobile (or other vehicle) parking lots and storage facilities;
8. Retail or wholesale fueling;
9. Pest control services;
10. Eating or drinking establishments;
11. Mobile carpet, drape or furniture cleaning;
12. Cement mixing or cutting;
13. Masonry;
14. Painting and coating;
15. Botanical or zoological gardens and exhibits;
16. Landscaping;
17. Nurseries and greenhouses;
18. Golf courses, parks and other recreational areas/facilities;
19. Cemeteries;
20. Pool and fountain cleaning;
21. Marinas; and
22. Port-a-potty servicing.

In addition to the criteria listed above, the City also considered the following site attributes to evaluate the potential threat to water quality:

- **Proximity and sensitivity to receiving water bodies**. The potential for pollutant transport to sensitive receiving water bodies was evaluated by determining the proximity and sensitivity of receiving water bodies. Using the definitions from section F.1.b.(2)(a)vii of the Permit, it was determined that the City of Carlsbad contains the following environmentally sensitive areas (ESA's):

    - Buena Vista Lagoon (RARE Beneficial Use, 303(d) impaired)
    - Buena Vista Creek (RARE Beneficial Use)
    - Agua Hedionda Lagoon (RARE Beneficial Use, 303(d) impaired)
    - Agua Hedionda Creek (proposed 303(d) for 2002)
    - Multiple Habitat Conservation Program Biological Core and Linkage Areas
    - Sensitive Vegetation Buffers as determined by the City of Carlsbad

All facilities directly discharging to or within 200 feet of the ESAs listed above were considered high priority.

- **Commercial sites/sources contributing significant pollutant loads to the MS4**. Dry weather field screening and analytical monitoring results were evaluated to identify any commercial sites/sources that contribute significant pollutant loads to the MS4. Complaints, violations, and field investigation reports were also reviewed, where available, to identify such sites.

- **Commercial facilities with Pretreatment Waste Permits.** Commercial facilities possessing Pretreatment Wastewater Permits were identified using a listing from the Encina Wastewater Authority and are noted with a double-asterisk in the tables at the end of this document.

The City of Carlsbad has generated a watershed-based map using GIS technology, and the commercial sites/sources identified by D-Max were entered into the GIS map. Figure 4-1 (below) provides the visual aid to indicate the location of each commercial facility by name and type of facility. The complete commercial inventory is found in Appendix C.

Figure 4-1

Characteristic or Criteria	**Definition**
Facility	Commercial Facilities as provided by D-Max Engineering, Inc. and identified by regional maps.
Location	Address from City of Carlsbad/Thomas Guide or nearest street used as locator in placing the Facility within a GIS framework.
Watershed	The hydrologic unit within the Carlsbad watershed.
Type of Commercial Activity	Narrative description including SIC Codes that best reflect the principal products or services provided by the facility.

Generated Wastes	As listed in Permit Order No. 2001-01, Finding #7, Pollutant Types: Suspended solids Sediment* Nutrients (nitrogen and phosphorus fertilizers)* Pathogens (bacteria*, viruses, protozoa) Heavy metals (copper, lead, zinc, and cadmium) Petroleum products/PAHs Pesticides, Herbicides, PCBs Oxygen-demanding substances (decaying vegetation, animal waste) Trash *303(d) water bodies listed pollutants
High Priority (Permit)	Commercial Permit Order No. 2001-01, Section F.3.c.(2) defines the 22 types of commercial sites/sources that must be considered a high priority threat to water quality.

<u>Action #2</u> - Annually update list and map of commercial sites.

The City of Carlsbad plans to inspect commercial sites at the frequencies specified in Section 4.4 of this component. The inspections will provide current commercial information that will be used to annually update the database and map of high priority commercial sites. These changes will be identified in the Annual Report to the San Diego Regional Water Quality Control Board.

4.3 Best Management Practices Implementation

4.3.1 Purpose and Permit Requirements

Purpose

The purpose of this section is to list the BMPs best suited for each priority category defined in Section 4.2 of this JURMP and how those BMPs will be implemented.

NPDES Permit Order No. 2001- 01 Requirement(s)

The Permit requirements under the Commercial Component Best Management Practices Implementation are as follows:

Section F.3.c.(3)(a)
Each Copermittee shall designate a set of minimum BMPs for the high priority threat to water quality commercial sites/sources (listed above in section F.3.c.(2)). The designated minimum BMPs for the high threat to water quality commercial sites/sources shall be site and source specific as appropriate.

Section F.3.c.(3)(b)
Each Copermittee shall implement, or require the implementation of, the designated minimum BMPs at each high priority threat to water quality commercial site/source within its jurisdiction. If particular minimum BMPs are infeasible for any specific site/source, each Copermittee shall implement, or require the implementation of, other equivalent BMPs. Each Copermittee shall also implement or require any additional site specific BMPs as necessary to comply with this Order.

Section F.3.c.(3)(c)
Each Copermittee shall implement, or require implementation of, additional controls for commercial sites or sources tributary to Clean Water Act section 303(d) impaired water bodies (where a site or source generates pollutants for which the water body is impaired) as necessary to comply with this Order. Each Copermittee shall implement, or require implementation of, additional controls for commercial sites or sources within or directly adjacent to or discharging directly to coastal lagoons or other receiving waters within environmentally sensitive areas (as defined in section F.1.b.(2)(a)(vii) of this Order) as necessary to comply with this Order.

Jurisdictional URMP Requirements

The Permit requirements under the Commercial Component for Best Management Practices Implementation are as follows:

Section H.1.a.(4)(c)
Which BMPs will be implemented, or required to be implemented, for high priority sites.

Section H.1.a.(4)(d)
How BMPs will be implemented, or required to be implemented, for high priority sites.

City Action Plan

1) Develop a list of BMPs for high priority commercial sites and sources.
2) Specify how BMPs will be implemented for each category.

4.3.2 Best Management Practices Implementation Action Plan

<u>Action #1</u> - Develop a list of BMPs for high priority commercial sites and sources.

BMPs are crucial to the success of runoff control in growing urban areas. The use of BMPs can be an ever-changing process. In order to be effective, BMPs must be properly implemented and assessed. If the desired result is not being achieved, the BMPs should be modified or changed. The change could be a new technology or it could simply be a creative use of an existing application. BMPs must be selected that are appropriate to prevent or mitigate pollution generated from the specific activities at the site, and may be selected based on the information learned from the facility inspection.

1) <u>Non-Structural BMPs</u>

Non-structural BMPs are procedures and practices that prevent pollutants from entering storm water. Because of their low cost and simplicity, non-structural BMPs should be considered first in the development of a facility's SWPPP or BMP program. Many of these methods may already exist as part of the standard operating procedures for a site. High priority commercial sites and sources shall implement the following minimum BMPs as applicable to their facility or operation.

A. Good housekeeping

Good housekeeping practices are designed to maintain a clean and orderly work environment. An orderly work environment may reduce the possibility of accidental spills caused by mishandling of chemicals or equipment and may reduce safety hazards to facility personnel. A clean work environment minimizes the discharge of pollutants into the storm water system.

B. Preventive maintenance

Preventive maintenance includes the regular inspection and maintenance of storm water structures (drains, catch basins, etc.) as well as other facility equipment and systems. Structures should be maintained in good working order and cleaned as needed to prevent discharge of pollutants into the storm water system. Facility equipment or systems should be properly maintained to prevent leaks or discharges of pollutants into the storm water system.

C. Material Storage and Handling of Significant Materials

This includes all procedures to minimize exposure of significant materials to storm water and to minimize the potential for spills and leaks from storage, loading, unloading and transfer of materials.

D. Employee training

Appropriate personnel should be trained in good housekeeping, preventive maintenance, materials storage and handling, solid waste handling and recycling, and spill response as applicable to the facility. Records should be retained of employees attending storm water training sessions and the topics covered.

E. Solid waste (non-hazardous) handling and recycling

This includes the procedures to handle, store, or dispose of waste or recyclable materials. Waste disposal areas should be kept free of litter and debris and waste and recyclable receptacles must have a cover or lid to prevent the contents from being dispersed by the wind or coming in contact with storm water.

F. Spill response

Spills and leaks can be a major contributor to storm water pollution. Facilities should identify potential locations and quantities of significant materials that may spill or leak, and should write and implement a response plan addressing spill containment, clean up and notification procedures. Appropriate spill clean-up equipment should be readily accessible to trained spill response personnel.

G. Record keeping

This includes the procedures to ensure that all records of inspections, spills, maintenance activities, corrective actions, visual observations, etc., are developed, retained, and provided, as necessary, to the appropriate facility personnel. Record keeping and internal reporting represent good operating practices as they increase the efficiency of the facility and the effectiveness of BMPs.

H. Self inspection/quality assurance

This includes, in addition to the preventative maintenance inspections identified above, an inspection schedule of all potential pollutant sources. Tracking and follow-up procedures should be described to ensure adequate corrective actions are taken. Quality assurance includes the procedures to ensure that all elements of any required SWPPPs or monitoring plans are adequately conducted.

2) <u>Structural BMPs</u>

Structural BMPs consist of specialized equipment, structural components, or engineered technologies that can be used when non-structural BMPs are ineffective. Because structural BMPs are site specific, the facility operator needs to evaluate each proposed use. Proper installation and regular maintenance of structural BMPs are imperative to their effectiveness. Following are some examples of structural BMPs:

A. Overhead Coverage

This includes structures that provide horizontal coverage of materials, chemicals, and pollutant sources from contact with storm water.

B. Retention Ponds

This includes basins, ponds, surface impoundments, bermed areas, etc., that do not allow storm water to discharge from the facility.

C. Control Devices

This includes berms or other devices that channel or route run-on and runoff away from pollutant sources.

D. Secondary Containment Structures

This generally includes containment structures around storage tanks and other areas for the purpose of collecting any leaks or spills.

E. Treatment

This includes inlet controls, infiltration devices, oil-water separators, detention ponds, vegetative swales, etc., that reduce the pollutants in storm water discharges.

3) High Priority Commercial Sites and Sources

Permit section F.3.c.(2) describes high priority commercial sites, as designated by the SDRWQCB, requiring a set of minimum BMPs. The City will consider the following activities when assisting with or reviewing the BMP plan for a particular facility:

- Loading/unloading;
- Fueling;
- Landscaping/grounds keeping;
- Washing equipment and/or vehicles;
- Cleaning and maintaining parking lots;
- Storing significant materials;
- Storing equipment and/or vehicles;
- Cleaning and maintaining of equipment on rooftops;
- Storing solid wastes;
- Discharging liquid wastes; and
- Controlling pests.

Not all of the aforementioned activities may pertain to a site, so BMPs applicable to the particular site will be selected after the site inspection. BMP manuals will be consulted; examples are listed in the source list found in Section 15.

The City may develop business or activity specific BMP booklets or guidance, if the grouping approach provides the most effective and efficient means of informing and educating a particular commercial facility type. As part of the inspection program, the City will analyze the feasibility of grouping commercial facilities for the purpose of developing specific BMP information; this effort will also be reviewed at the Watershed level with other cities in the North County to identify further opportunities not available at the local level.

4) Hazardous Materials Management

Many commercial facilities handle hazardous materials during different stages of operation. All hazardous materials and hazardous wastes must be handled, stored, or disposed of as required by all applicable local, State, and Federal regulations.

For more information, facility operators may be directed to contact their County Hazardous Materials inspector or the County Hazardous Materials Division duty specialist at (619) 338-2231.

Operators of plant (flora) production facilities (greenhouses and nurseries) and certain non-plant-production operations (golf courses, pest control services, botanical or zoological gardens, cemeteries, parks, and recreational facilities) may also be referred to the County Department of Agriculture, Pesticide Regulatory Program, at (858) 694-3122 for information regarding the storage and handling of hazardous materials and wastes.

<u>Action #2</u> – Specify how BMPs will be implemented for each commercial category.

1) Outreach and Education

The City's Storm Water Outreach Team has developed commercial activity BMP booklets for distribution to target audiences. The "*Restaurant Best Management Practices*" booklet, in both English and Spanish versions, was the first of the series. The City also held workshops and provided a model SWPPP with BMP information for Auto Dealers and Auto Repair Shops. In the coming year, the City anticipates developing several other BMP booklets. Target commercial audiences or groups under consideration at this time include impervious surface cleaning, mobile vehicle washing, landscaping, and pool and spa service. This information will be made available at workshops, training sessions, and meetings organized by the City or with the collaboration of business associations or groups.

2) Facility inspections

The City of Carlsbad will require commercial sites and sources to implement BMPs and the effectiveness of BMPs will be evaluated during inspections. In response to Section F.3.c.(3)(c), additional controls, if warranted, will be implemented for commercial sites or sources tributary to Clean Water Act section 303(d) impaired waters or other receiving waters within Environmentally Sensitive Areas.

Commercial business employees must be trained to understand the requirements of the SWPPP or the BMPs for the activities at each facility. During inspections, City staff will verify that on-going training is being conducted as required.

3) SWPPP Review

In some cases, commercial businesses may have been required to submit a SWPPP as a condition for developing or building the facility. The SWPPP and BMPs will be reviewed during routine inspections to ensure that they are being implemented effectively.

4.4 Inspection of Commercial Sites

4.4.1 Purpose and Permit Requirements

Purpose

The purpose of this section of the Commercial Component is to develop an inspection protocol for sites and sources that have a high potential for impacting storm water quality.

NPDES Permit Order No. 2001- 01 Requirement(s)

The Permit requirement under the Commercial Component for Inspections of Commercial Sites is as follows:

Section F.3.c.(4)
Each Copermittee shall inspect high priority commercial sites and sources as needed. Based upon site inspection findings, each Copermittee shall implement all follow-up actions necessary to comply with this Order.

Jurisdictional URMP Requirements

The Permit requirements under the Commercial Component for Inspections of Commercial Sites are as follows:

Section H.1.a.(4)(e)
*Planned inspection frequencies for high priority sites***.**

Section H.1.a.(4)(f)
Methods for inspection

City Action Plan

1) Establish inspection frequencies for high priority commercial sites.

2) Develop an inspection procedure for these high priority sites and sources.

4.4.2 Inspection of Commercial Sites Action Plan

<u>Action #1</u> – Determine inspection frequencies for these facilities.

Permit section F.3.c.(4) states that high priority commercial sites and sources are to be inspected as needed. An inspection includes, but is not limited to, a review of BMP implementation plans and an assessment of their effectiveness. The inspection results will provide additional information for updating the watershed-based inventory database required by Permit section F.3.b.(2).

Currently, commercial sites are being inspected on a complaint basis. If a storm water complaint is received about a commercial site or source, or an illegal discharge is observed or suspected, the City will investigate by conducting a complete storm water inspection. Commercial sites or sources may also be chosen for inspection based on results of dry-weather field screening indicating a potential problem area. As more water quality data area collected, it is expected that commercial sites may be chosen for inspection based on their potential to discharge a constituent of concern to a specific waterbody.

To facilitate compliance by commercial facilities, the City may coordinate inspections with planned workshops and BMP booklet development aimed at specific commercial activities (i.e., restaurant BMPs, mobile washing, landscaping, etc.).

<u>Action #2</u> –Develop an inspection procedure for these commercial sites.

1) **Goal**. The City will inspect a commercial site to determine if the facilities and operations are in compliance with the Permit and local ordinances, and to review and assess the BMP implementation plans to determine their effectiveness. To accomplish this goal, the City may provide educational materials and technical or regulatory updates, review SWPPPs (if available), provide feedback about BMPs appropriate for a given activity, and identify any illicit discharges and connections to the storm water conveyance system.

2) **Types of Inspections**.

   a. **Advisory inspections.** The City plans to conduct advisory inspections for most first time facility inspections, and to follow these up with compliance inspections. The only difference is that advisory inspections are announced inspections, so that the inspector can meet with the responsible facility owner/operator in order to provide more efficient communication of the storm water requirements and inspection goals. An advisory inspection will focus on current operations, BMPs in use, and the effectiveness of those BMPs.

   b. **Compliance Inspections.** A Compliance Inspection will cover the same information as an advisory inspection, but will typically be unannounced in order to verify compliance and that BMPs are being effectively implemented.

   c. **General Procedures.** For conducting inspections, the City may use the Alameda Countywide Clean Water Program's *California Industrial/Commercial Stormwater Inspection Program Handbook, March 1996,* the U.S. EPA (1994) *Industrial User Inspection and Sampling Manual for POTW's,* or other City of Carlsbad Storm Water Protection Program procedures.

3) **Pre-inspection Preparation.**

a. **Purpose.** The inspector needs to establish the purpose and scope of the inspection and to review all pertinent background information. For an advisory inspection, the inspector will contact the commercial owner or operator to schedule the inspection. The inspector may also request that relevant documents be available for on-site review (e.g., SWPPP, site plans, spill response plan, etc).

b. File review. The inspector will review any existing City files or information for the business, which may include past complaints, permits, monitoring data or submitted SWPPPs.

c. **Database review.** The inspector will also review the inventory database to identify the SIC code and determine what type of commercial activities and pollutants may be expected. The database will identify the sub-watershed and proximity to Clean Water Act (CWA) 303(d) water bodies or environmentally sensitive areas (ESAs).

4) Approach to the Site

Observations. Before entering the facility grounds, the inspector should make note of the following:

a. Nearby conveyances or water bodies;
b. Visible discharge points along the perimeter of the site;
c. Outdoor areas of intensive commercial activity; and
d. Signs of recent additions or remodels.

5) **Entry and Opening Conference**

a. **General procedures.** The inspector will present proper credentials and will request to meet with the appropriate business owners/operators to discuss the inspection scope and objectives.

b. **Denial.** If the inspector is denied entry into the facility, the inspector will withdraw from the premises and contact the Environmental Programs Manager to determine if court action should be sought to obtain entry.

c. **Opening Conference**. After authorized entry, the inspector will further discuss the inspection scope and objectives. The inspector should attempt to verify and update the City's inventory information, such as:

i. Changes in ownership or operations;
ii. Clarification of observations noted before entering the facility; and
iii. Review of the SWPPP or BMP plans, which can include these elements:

1. Site map;
2. List of activities, types of pollutants, and existing non-structural and structural BMPs to reduce these pollutants in storm water discharge;
3. Pollution prevention methods;
4. Description of type and location of non-storm water discharges, both authorized and unauthorized; and
5. Inventory of materials, including storage and loading/unloading areas.

6) Facility Inspection

a. **Outdoor walk through.** The inspector and business official(s) should walk through all outdoor areas and observe activities, wherever it is safe to do so. Typical areas of activity that might impact storm water quality include:

i. Wash and rinsing areas;
ii. Processing areas;
iii. Material storage areas;
iv. Loading, unloading and transfer areas;
v. Waste storage/disposal areas;
vi. Vehicle and heavy equipment storage and maintenance areas;
vii. Parking areas and access roads; and
viii. Rooftop equipment areas.

The inspector should attempt to gain a clear understanding of how runoff leaves the site by observing all portions of the storm water conveyance system and site grading, where possible and safe. This includes inlets, open channels, ditches, etc.

The inspector will document the observed conditions, including any BMPs being implemented, and will assess the facility's impact on storm water quality from the outdoor activities. Impact includes the facility's *potential* to discharge and the facility's *actual* discharge, which are further described below.

b. Indoor walk through. Review indoor activities and areas to ensure that pollutants are not spilled, dumped, or allowed to flow outdoors. The inspector will document the observed conditions, including any BMPs being implemented, and will assess the facility's impact on storm water quality from the indoor activities.

c. **Assess impact on storm water quality.** The inspector should attempt to determine the facility's impact on storm water quality at two levels: the facility's potential to discharge and the facility's actual discharge. The difference between potential and actual is determined by whether BMPs are effectively applied. For example, a facility that stores all of its machinery and heavy equipment outdoors has a high potential to impact storm drains from any oil and grease that might be exposed to runoff. However, if the equipment is well maintained and always covered by a tarp when not in use, the level of pollutant exposure is minimized and the actual impact of the facility is small. The inspector should note three things on the inspection report.

i. <u>What is the facility's potential to impact storm water quality from pollutant exposure and non-storm water discharges?</u> Identify areas or activities that require BMPs to be applied to reduce or eliminate potential pollutant discharges to storm drains. If BMPs are in place, determine what the impact would be if BMPs failed or were no longer applied.

ii. <u>Are BMPs effectively applied so that pollutant exposure is minimized and non-storm water discharges are eliminated?</u> For each of the facility's areas of activity, observe whether BMPs are in place and effective. The inspector may encounter situations where a BMP is in place but is not effectively applied. For example, an outdoor drum storage area might be bermed but the berm leaks or is already full of rainwater so that a spill would overflow the contained

area. The inspector will use best professional judgment on the imminent impact of the facility and decide how much time to allow the owner/operator to correct the problem.

iii. What type(s) of impact does or could the facility have on storm water quality? Clearly describe on the inspection report whether the impact is from: 1) pollutant exposure to runoff; and/or 2) non-storm water intentionally or accidentally discharged to the storm drains (e.g., illicit connections, process wastewater, spills, illegal dumping, etc.).

d. Document inspection activities. As the inspector observes the outdoor and indoor activities at the facility, she should take notes and photos as appropriate. The inspector should document the locations and types of BMPs that are currently being implemented, and also assess areas where BMPs will need to be implemented. The City will develop an inspection form to assist the inspector with collecting general information, documenting observations, reviewing SWPPPs, assessing BMPs, and recommending corrective actions for violations. The inspector may also collect illicit discharge or storm water samples from the facility as appropriate.

e. Closing Conference. After the walk-through of the facility, the inspector should collect any missing or additional information, including verifying the SIC code. The inspector may review other documentation to look for indications of discharge problems, such as monitoring data records, the Hazardous Materials Release Response Plan and Inventory, permits, manifests, logs or other records that may be required of the facility from local, state or federal laws in order to conduct business on the premises. The inspector should review the inspection findings and inform the owner/operator of follow-up procedures.

7) **Inspection report and follow-up.** The inspector will update the inventory and complete the inspection report upon return to the office. The inspection report should contain at least the following sections:

a. General information to update the inventory;
b. Review of the SWPPP, if available;
c. Assessment of BMP implementation;
d. Documentation of violations and time frame for correction; and
e. Signature and confirmation.

Follow-up inspections will be done as needed to confirm BMP implementation and compliance. Section 4.7 of this component provides more detailed guidelines concerning enforcement actions.

4.5 Enforcement of Commercial Sites and Sources

4.5.1 Purpose and Permit Requirements

Purpose

The purpose of this section of the Commercial Component is to define the enforcement actions associated with noncompliance of the Permit, City Ordinance, or JURMP requirements.

NPDES Permit Order No. 2001- 01 Requirement(s)

The Permit requirement under the Commercial Component for Enforcement of Commercial Sites is as follows:

Section F.3.c.(5)
Each Copermittee shall enforce its storm water ordinance for all commercial sites and sources as necessary to maintain compliance with this Order.

Jurisdictional URMP Requirements

The Permit requirement under the Commercial Component for Enforcement of Commercial Sites is as follows:

Section H.1.a.(4)(g)
A description of enforcement mechanisms and how they will be used.

City Action Plan

1) Generate a list of enforcement mechanisms.
2) Develop an Enforcement Response Plan to outline how each enforcement mechanism will be applied.

4.5.2 Enforcement of Commercial Sites and Sources Action Plan

Action #1 - Generate a list of enforcement mechanisms.

City inspectors and staff members with enforcement authority will issue enforcement actions to commercial owners and operators failing to comply with the Carlsbad Municipal Code, storm water pollution prevention plan or BMP requirements specified by the City. The inspectors, in accordance with the City's existing procedures, will document each observed violation. Depending on the severity of the violation, enforcement actions can range from a verbal warning to civil or criminal court actions with monetary fines. The inspectors will have flexibility to recommend appropriate compliance time frames and to escalate enforcement on a case-by-case basis as needed to ensure compliance.

*If a significant and/or immediate threat to water quality is observed by a City of Carlsbad inspector, action will be taken to require the facility owner and/or operator to immediately cease the discharg*e. The enforcement mechanisms available to City of Carlsbad inspectors are as follows:

(a) Verbal and/or written warnings;
(b) Notice of Violation;
(c) Compliance schedule;
(d) Cease and Desist Orders or Stop Work Orders;
(e) Notice to Clean, Test and/or Abate;
(f) Suspension, revocation, or denial of permits or license;
(g) Administrative penalties and fines;
(h) Declaration of a Public Nuisance; and,
(i) Civil and/or criminal court actions.

While these measures typically escalate in enforcement action, they are not required to be issued in the exact order presented here. City inspectors will apply or recommend any of the enforcement steps as appropriate according to their best professional judgment and the guidelines of the Enforcement Response Plan. A discussion of these measures is provided below.

1. Verbal and/or written Warnings

A common initial method of requesting corrective action and obtaining compliance is a verbal or written warning from the City of Carlsbad inspector to the commercial facility owner and/or operator. Verbal warnings are often sufficient to achieve correction of the violation, often while the inspector is present at the facility. After notifying the owner or operator of the violation, the inspector should document the violation and notification in the inspection file, and note any time frames given for correcting the problem or follow-up inspections needed. In judging the degree of severity, the City of Carlsbad inspector may also take into account any history of similar or repeated violations at the facility.

2. Notice of Violation

A written Notice of Violation is used when verbal or written warnings are not deemed sufficient to correct the violation or additional documentation is warranted. The written Notice of Violation describes the infraction that is to be corrected and the required response or time frames for correction. The notice is issued to the operator and/or owner, and a copy is placed in the active inspection file. If the violation is corrected to the satisfaction of the inspector, the inspector will document compliance in the inspection file.

3. Compliance Schedules

A compliance schedule may be issued to ensure that multiple violations or more complex violations requiring capital expenditures or improvements are corrected by specified deadlines.

4. Cease and Desist Orders or Stop Work Orders

A City inspector may issue an order to cease and desist a discharge, practice or operation that is occurring or is likely to take place in violation of the City ordinance. The inspector may direct the responsible party to take appropriate remedial or preventive action to prevent the violation from recurring. Whenever any work is being done contrary to the provisions of the City ordinance, the City inspector may issue a written order that the work be stopped until further notice.

5. Notice to Clean, Test and/or Abate

If the enforcement official finds any sediment, waste or pollutants on the sidewalk or a parcel of land that has potential to enter the City's storm water conveyance system in violation of the City ordinance, the inspector may issue a written notice to remove the material in a reasonable manner.

6. Suspension, Revocation, or Denial of Permits or Licenses

Violations of the City ordinance may be grounds for local permit or license denial, suspension, or revocation.

7. Administrative Penalties or Fines

Because violations vary in threat to water quality, City of Carlsbad inspectors may consider utilizing storm water field citations for infractions or misdemeanors. Similar to traffic violations, the penalty for a storm water infraction can be relatively minor for a first offense. Repeated violations could result in escalating fines or misdemeanor charges.

8. Declaration of a Public Nuisance

Whenever an existing condition or a discharge into the storm water conveyance system violates the City ordinance, it is considered a threat to public health, safety, and welfare and may be declared a public nuisance. The inspector may follow appropriate procedures to recommend a declaration of a Public Nuisance by City Council in order to abate the nuisance discharge or condition.

9. Civil and/or Criminal Court Actions

As a final resort, the City of Carlsbad may use civil and or criminal court actions under the State Porter Cologne Water Quality Act or the Federal Clean Water Act, which may result in significant fines levied upon the non-compliant responsible parties.

Action #2 – Develop an Enforcement Response Plan to outline how each enforcement mechanism will be applied.

The City will develop an Enforcement Response Plan to outline the procedures to be followed by City inspectors to identify, document, and respond to storm water violations. The plan will provide guidance in selecting initial and follow-up enforcement actions, identifying responsible staff, and specifying appropriate time frames for actions.